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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,106	04/09/2002	Anton Scholten	VER-153 XX	1182

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BOSTON, MA 02109

EXAMINER

ALEJANDRO, RAYMOND

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 10/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/980,106

Applicant(s)

SCHOLTEN ET AL.

Examiner

Raymond Alejandro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2002 .
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,8,11 and 14-19 is/are rejected.
- 7) ☒ Claim(s) 5-7,9,10,12,13 and 20-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . 6) ☐ Other: _____ .

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "56" has been used to designate both the bypass and the heat destroyer. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 84. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "30" and "44" have both been used to designate the second heating circuit. *(It is noted that reference numeral "44" is pointing to the second heating circuit per se, not to the controllable by-pass connection).* A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 11 is indefinite as its structural cooperative relationship of elements amounts to a gab between the necessary structural connections. That is to say, it is unclear as to how the second outlet is also connected with the second outlet of the waste gas burner per se because by inspecting the drawing it appears that the second outlet is connected with an inlet of the waste gas burner. Further clarification is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-4, 8 and 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by the Australian publication AU 9724945.

With respect to claims 1-4 and 19:

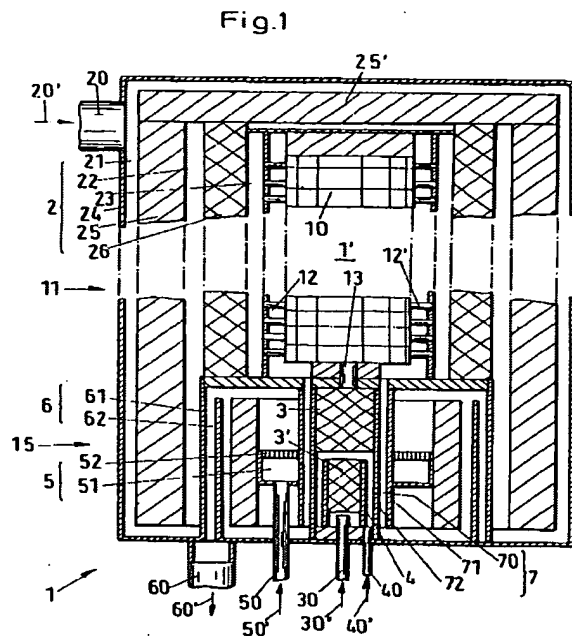
The AU'945 publication discloses an apparatus 1 comprising a cell block 1' with fuel cells 10, a heating insulating jacket 2, an afterburner chamber 12 between the jacket and the cell block, a prereformer 3 (the fuel processor) for combustion gas 39' and an auxiliary heat source (ABSTRACT/CLAIM 9). The apparatus further comprises a first and second heat exchangers 6 and 7 for the preheating of air 20' and for preheating the prereformer respectively (ABSTRACT/CLAIM 9). During start up phase, air which is fed into the apparatus is preheated in the first heat exchanger 6 by means of a mixture formed of hot combustion gas and exhaust air 120' with the mixture being conducted separately from the air (ABSTRACT/CLAIM 9). In the second heat exchanger the prereformer is heated to the operating temperature with the hot combustion gas (ABSTRACT/CLAIM 9). The apparatus also comprises an internal or external auxiliary burner 5, 9 (CLAIM 9). It is disclosed that the energy for heating the prereformer 3 is supplied by the auxiliary burner 5, and the combustion gas 50" heats up the second heat exchanger 7 and

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thereafter, the combustion gas is also mixed with exhaust air 120' from the cell block 1' (page 4, line 33 to page 5, line 15).

Regarding claim 8:

Figure 1 below shows fuel cell 10 wherein the fuel cell has the specific inlet features connecting the fuel cell and the reformer, and for supplying air; and the specific outlet features for discharging both the unburned gas and the unused air therefrom.



As for claims 14-17:

It is disclosed that the apparatus shown in Figure 4 has, additionally, the burner 9, a heat exchanger 95 and a heat consumer 99, wherein gas 30'' is burned with air 20'' in the burner 9 to form the combustion gas 90'' (page 7, lines 23-32). It is also disclosed that by using the member 90, the combustion gas 90'' can be selectively supplied to the heat exchanger 95 or to the apparatus per se (page 7, line 32 to page 8, line 5) *Thus, this arrangement forms the central heating circuit.*

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As to claim 18:

It is disclosed that the apparatus comprises a jacket chamber serving as a vaporizer for water 40' and its supply line 40 (page 4, lines 7-20/ Figure 2).

Thus, the claims are anticipated.

Allowable Subject Matter

11. The following is a statement of reasons for the indication of allowable subject matter: a reasonable search for the prior art failed to reveal or fairly suggest what is instantly claimed, particularly: the specific afterburner separate inlet as recited in claim 5 or 21; the specific waste gas burner inlets as recited in claim 6 or 21; and the specific controllable bypass connection as recited in claim 12.

12. Claims 5-7, 9-10, 12-13 and 20-24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claim 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (703) 306-3326. The examiner can normally be reached on Monday-Thursday (8:30 am - 7:00 pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (703) 308-2383. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Raymond Alejandro
Examiner
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A handwritten signature in black ink, appearing to read 'Ray', with a long horizontal stroke extending to the right.